



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|------------------------|---------------------|------------------|
| 10/520,013 | 08/05/2005 | Stephen Temple | 27754/24867 | 9262 |
| 4743 7590 10/21/2008 MARSHALL, GERSTEIN & BORUN LLP 233 S. WACKER DRIVE, SUITE 6300 SEARS TOWER CHICAGO, IL 60606 | | | | |
| EXAMINER NGUYEN, LAM S | | | | |
| ART UNIT 2853 | | PAPER NUMBER | | |
| MAIL DATE 10/21/2008 | | DELIVERY MODE PAPER | | |

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/520,013

Applicant(s)

TEMPLE, STEPHEN

Examiner

LAM S. NGUYEN

Art Unit

2853

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 July 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-37 is/are pending in the application.
- 4a) Of the above claim(s) 1-24 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 25-32 is/are allowed.
- 6) ☒ Claim(s) 33-37 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/CDC)
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date: _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____
- Paper No(s)/Mail Date 2/07/08

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 33-34, and 37 are rejected under 35 U.S.C. 102(b) as being anticipated by Mantell et al. (EP 0 767 061 B1).

Regarding to claims 33, 37:

Mantell et al. discloses a method of ink jet printing a representation on a print medium of an array of print data pixels (*FIG. 12: Each ink drop forms a pixel*) comprising the steps of distributing print data from said array of print data pixels over an array of super pixels (*FIG. 12, element 124: The super pixels is formed by an overlapped pair of ink drops*) in a distribution function such that each super pixel receives a print data contribution from at least two print data pixels (*FIG. 12, element 124: Because each super pixels is formed by an overlapped pair of ink drops, print data for a super pixel is contributed from print data corresponding to the pair of ink drops*) and each print data pixel contributes print data to at least two super pixels (*FIG. 12: As shown by reference 126, each ink drop (pixel) overlaps with at least two other ink drops (pixels); In other word, print data associated to each ink drop (pixel) contributes print data to at least two or three super pixels*); and forming print pixels on the medium such that each print pixel receives print contribution from at least two super pixels, wherein each of print pixel corresponds to the area of overlap of said at least two super pixels (*FIG. 12: Regarding to reference 126, because*

each ink drop (pixel) joins to other adjacent ink drops to form/respond to at least two super pixels, each ink drop receives contribution from those two super pixels).

Regarding to claim 34: wherein each super pixel receives a print data contribution from at least three print data pixels (*FIG. 13-14*).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 35-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mantell et al. (EP 0 767 061 B1) in view of Silverbrook (WO 02/02330 A1).

Mantell et al. discloses the claimed invention as discussed above except wherein the print data contribution varies in sign between said print data pixels, wherein the at least two super pixels from which a print pixel receives print contribution, receive print data contributions from different combinations of print data pixels, further comprising the step of measuring the print efficiency of each super pixel, distribution function includes comprising distributing the measured print efficiency as print data.

Silverbrook discloses a printing method operated in an ink jet printing apparatus in which super pixels are formed on a printing medium accordantly to print efficiency by contributing from different combination or varying in sign of print data pixels (*FIGs. 3 and 5: The super pixels are formed by combination of multiple pixels 24 accordantly to the print efficiency due to the defective failure of a nozzle*).

Therefore, it would have been obvious for one having ordinary skill in the art at the time invention was made to modify Mantell's printing apparatus to include measuring print efficiency and forming pixels accordantly as disclosed by Silverbrook. The motivation for doing so would have been to compensate for failure of ink ejection from a nozzle to correctly print dots of ink at specific locations as taught by Silverbrook (*page 1, lines 28-30*).

Allowable Subject Matter

3. Claims 31-32 are allowed and the reason for allowance was indicated in the previous office action.

Claims 25-30 are allowed in light of the Applicant's arguments dated 07/14/2008.

Response to Arguments

Applicant's arguments filed 07/14/2008 regarding to the amended claim 25 have been found persuasive. The Applicant however did not argued about the rejection of claim 33. The rejection of claim 33 thus is maintained.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LAM S. NGUYEN whose telephone number is (571)272-2151. The examiner can normally be reached on 7:00AM - 3:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, STEPHEN D. MEIER can be reached on (571)272-2149. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/LAM S NGUYEN/
Examiner, Art Unit 2853